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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,330	09/16/2003	Takashi Ohira	Q77492	9180
23373 7590 04/20/2007 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER TSOY, ELENA	
			ART UNIT 1762	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action  
Before the Filing of an Appeal Brief**

**Application No.**

10/662,330

**Applicant(s)**

OHIRA, TAKASHI

**Examiner**

Elena Tsoy

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**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 13 April 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: \_\_\_\_\_.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See attached.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

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***Advisory Action***

1. The Request for Reconsideration filed on April 13, 2007 under 37 CFR 1.116 in reply to the final rejection has been considered but is not deemed to place the application in condition for allowance for the reasons of record set forth in the Final Office Action mailed on 1/16/2007.

***Response to Arguments***

2. Applicants' arguments filed April 13, 2007 have been fully considered but they are not persuasive.

(A) Applicants argue that the applied combination of art does not disclose or suggest the presently claimed subject matter, for at least each one of the following independent reasons.

(1) First, the "co-curing" language in Claim 1 actually recites "irradiating the layers ***with UV radiation***, thereby permitting both of the primer composition layer and the UV-curable paint to cure at the same time." Nealon does not at all mention UV radiation. The curing in Nealon is strictly thermal curing. See, for example, column 4, lines 45-54, of Nealon. (2) Second, even if the recitation in Claim 1 that the layers are irradiated with UV radiation is to be ignored, the examiner's analysis of Claim 1 in the Office Action ignores the recitation that "the primer composition layer is ***not irradiated*** with UV radiation ***prior to*** having the UV-curable paint applied thereon." ***None*** of the applied references teaches or suggests to ***not irradiate*** the primer composition layer with UV radiation ***prior to*** having the UV-curable paint applied thereon. In fact, Nealon teaches away from not irradiating the primer composition layer with UV radiation prior to having the UV-curable paint applied thereon. At column 4, lines 45-54, Nealon teaches to cure the primer for 10 minutes in a curing oven ***before*** applying the top coat.

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The Examiner respectfully disagrees with this argument.

First of all, in contrast to Applicants argument, *none* of the applied references teaches or suggests to *irradiate* the primer composition layer with UV radiation *prior to* having the UV-curable paint applied thereon including Nealon;

Secondly, it is well known in the art that resins containing reactive double bonds, e.g. *acrylic* moieties, can be cured by **heat**, or any kind of *actinic* radiation including **UV-radiation**, electron beam, etc., as evidenced by Nealon teaching that a primer containing a combination of *acrylic* and polyurethane dispersions (See column 2, lines 50-69) and polyfunctional *aziridine* crosslinker (See column 3, lines 4-6) can be cured by heat (See column 4, lines 52-55), and by Jin et al teaching that a composition comprising urethane *acrylate* (See P24) and polyfunctional *aziridine* (See P14) can be cured by UV-radiation. In other words, it is well known in the art that heat is functionally equivalent to UV-radiation for curing resins containing active double bonds such as acrylic moieties. Therefore, one of ordinary skill in the art would have reasonable expectation of success in achieving excellent adhesion by co-curing a primer and a top coat in the cited prior art no matter what kind of energy was used: heat or UV-radiation or *dual* curing by heat **and** UV-radiation;

Thirdly, claim 1 does not exclude a step of partial curing of the primer by heat (as in Nealon) before co-curing the primer and the top coat by UV-radiation.

(C) Applicants argue that Jin does not teach the use of its UV-curable coating as a primer. Instead, at paragraph [0022], Jin identifies its UV-curable coating as a topcoat. There is no motivation to combine Crast et al with Jin et al except for hindsight reasoning because Crast provide no indication that enhanced adhesion is needed. In fact, the very opposite is true. At

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column 4, lines 11-12, Crast teaches that its UV-curable coating may be applied to ionomeric covers. The only teaching or suggestion that the coatings of Crast may be deficient appears at page 1 of Applicants' disclosure.

The Examiner respectfully disagrees with this argument. In contrast to Applicants argument, Crast does provide indication of using a **primer** (See column 4, lines 14-15). **Jin et al provides motivation** of using their primer to obtain an *enhanced adhesion* to an ionomer substrate in golf balls. Therefore, one of ordinary skill in the art would be **motivated** to use a primer of Jin et al to achieve the desired *enhanced adhesion* to an ionomer substrate of golf balls of Crast. Obviously, a layer of Jin's composition would provide *enhanced adhesion* to an ionomer substrate of golf balls whether a top coat is applied to the layer or not.

(B) Applicants maintain their argument that combining Crast and Jin in the manner proposed by the examiner would lead to a solvent-free primer between the UV-curable coating of Crast and the cover surface of a golf ball, whereas the method of Claim 1 comprises coating a layer of a primer composition comprising an aqueous resin having UV-curable functional groups in a molecule and a crosslinker on the cover surface of a golf ball.

The Examiner respectfully disagrees with this argument. Claim 1 comprises coating a layer of a primer composition comprising an *aqueous* resin having UV-curable functional groups in a molecule and a crosslinker on the cover surface of a golf ball, and applying a UV-curable paint onto the primer. Therefore, in contrast to Applicants argument, claim 1 also leads to the aqueous primer between the UV-curable coating of Crast and the cover surface of a golf ball, as in combination of Crast and Jin in the manner proposed by the examiner.

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(D) Applicants maintain their argument that Jin "teaches away" from the proposed combination of Jin and Lokai. Jin criticizes, discredits, or otherwise discourages modifying its solvent-free coating by reformulating it as a water-based composition. First, at paragraphs [0013] and [0036], Jin discourages such a reformulation by making clear that the advantageous effects and benefits of its invention are tied to the coating being "a nearly 100% solid system" with any remainder being solvent. Second, at paragraph [0007], Jin criticizes water-borne coatings as suffering from the drawback of a long curing time. In short, a person of ordinary skill in the art would not have been motivated to combine Jin and Lokai in the manner proposed by the examiner.

The Examiner respectfully disagrees with this argument. At paragraph [0007], Jin criticizes current water-borne coating compositions such as those described by US 4,459,326 as suffering from the drawback of a long curing time. Note that the water-borne coating of US 4,459,326 comprises a polyurethane and acrylic polymer combination and polyfunctional aziridine crosslinker (See column 3, lines 4-6) that needs to dry for ½ to 4 hours (See P7). Therefore, it would be obvious to a person of ordinary skill in the art to use a water-borne coating composition of US 4,459,326 comprising a polyurethane, acrylic polymer and polyfunctional aziridine crosslinker when drying time of ½ hour is not crucially important with expectation of providing the desired *enhanced adhesion* to an ionomer substrate of golf balls of Crast since Jin teaches that a coating composition comprising a polyurethane, acrylic polymer and polyfunctional aziridine crosslinker provides the desired *enhanced adhesion* to an ionomer substrate of golf balls, and Lokai teach that that a coating composition having reactive diluents may be formulated as a water based composition having the same properties.

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***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is 571-272-1429. The examiner can normally be reached on Monday-Thursday, 9:00AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Elena Tsoy  
Primary Examiner  
Art Unit 1762

ELENA TSOY  
PRIMARY EXAMINER



April 18, 2007